NOTICE THIS REVISION DESCRIBED BELOW H	1. DATE (YYMMDD) 95-10-20	Form Approved OMB No. 0704-0188					
Public reporting burden for this collection is estimated t sources, gathering and maintaining the data needed, are estimate or any other aspect of this collection of informs	s, searching existing data regarding this burden hase, Washingtion	2. PROCURING ACTIVITY NO.					
Public reporting burden for this collection is estimated to sources, gathering and maintaining the data needed, an estimate or any other aspect of this collection of informat Headquarters Services, Directorate for Information Ope Office of Management and Budget, Paperwork Reductive PLEASE DO NOT RETURN YOUR COMPLETED FOF ISSUING CONTRACTING OFFICER FOR THE CONT	VA 22202-4302, and to the TO THE GOVERNMENT RM.	3. DODAAC					
4. ORIGINATOR	b. ADDRESS (Defense Sup	Street, City, State, Zipply Center Columbus		5. CAGE CODE 67268	6. NOR NO. 5962-R144-95		
a. TYPED NAME (First, Middle Initial, Last)	1507 Wilming Dayton, OH			7. CAGE CODE 67268	8. DOCUMENT NO. 81006		
9. TITLE OF DOCUMENT Microcircuits, Linear, CMOS, High Level A	nalog Switches \	With Drivers,	10. REVISION LET	TER	11. ECP NO.		
Monolithic Silicon			a. CURRENT F	b. NEW G	81006ECP-1		
12. CONFIGURATION ITEM (OR SYSTEM	1) TO WHICH E	CP APPLIES		•			
13. DESCRIPTION OF REVISION							
Sheet 1: Revisions Itr column; add "G". Revisions description column; add "95-10-20". Revisions date column; add "95-10-20". Revision level block; add "G". Rev status of sheets; for sheet 1, 2, 3, 8, 9, and 10, add "G". Sheet 2: 1.2.2, under case outline letter add "X", under descriptive designator add "CDFP3-14" under terminals add "14", under package style add "flat pack". Revision level block; add "G". Sheet 3: 1.3, Power dissipation, delete "Case A at T _A = +125C" and substitute "Case A and X at T _A = +125C". Revision level block; add "G". Sheet 8: Figure 1, Terminal connections, delete "device types 02, 10, and 19, case "E", diagram and substitute the following; Device types 02 and 10 Case outline E Case outline E							
Continued on following pag							
14. THIS SECTION FOR GOVERNME	ENT USE ONL	Y					
a. (X one) X (1) Existing docu	ıment supplem	ented by the NOR n	nay be used in mar	nufacture.			
(2) Revised docu	ument must be	received before mai	nufacturer may inc	orporate this change.			
(3) Custodian of	master docum	ent shall make abov	e revision and furn	ish revised document.			
b. ACTIVITY AUTHORIZED TO APPR	OVE CHANGE	FOR	c. TYPED NAME	(First, Middle Initial, L	Last)		
GOVERNMENT Michael A. Frye							
DESC-ELDS d. TITLE		e. SIGNATURE			f. DATE SIGNED		
Chief, Microelectronics Branch Michael A. Frye					(YYMMDD) 95-10-20		
15a. ACTIVITY ACCOMPLISHING RE	VISION	b. REVISION COM	MPLETED (Signat	ure)	c. DATE SIGNED		
DESCC-ELDS Marcia B. Kelleher					(YYMMDD) 95-10-20		

13. DESCRIPTION OF REVISION - CONTINUED

Document No.: 81006

Revision: G NOR No.: 5962-R144-95

Sheet: 2 of 2

Sheet 8: Revision level block; add "G".

Sheet 9: Figure 1, Terminal connections, delete "device type 04 only, case A", diagram and substitute the following;

Device type 04
Case outline A

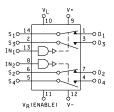
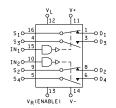
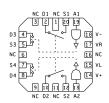


Figure 1, Terminal connections, delete "device types 12 and 22, case E and case 2", diagram and substitute the following; Device types 04, 12, and 22 Case outline E Case outline 2





Revision level block; add "G".

Sheet 10: Figure 1, Terminal connections, delete "device type 06 only, case A", diagram and substitute the following; Device type 06

Case outline A and X

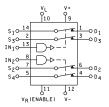
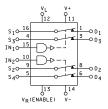
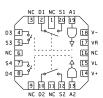


Figure 1, Terminal connections, delete "device types 14 and 20, case E and case 2", diagram and substitute the following; Device types 06, 14, and 20 Case outline E





Revision level block; add "G".

	REVISIONS							
LTR	DESCRIPTION	DATE (YR- MO-DA)	APPROVED					
F	Add peak current to absoulute maximum ratings. Editorial changes throughout.	92-11-24	M. A. Frye					

THE ORIGINAL FIRST PAGE OF THIS DRAWING HAS BEEN REPLACED.

CURRENT CAGE CODE 67268

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STANDA MIL: DRA	ITA	RY	D	CHECKED BY D. A. DiCenzo						DAYTON, OHIO 45444									
THIS DEFA	LAB E BY	LE Z AL NTS	L		ROVE A. H				MICROCIRCUIT, LINEAR, CMOS, HIGH LEVEL ANALOG SWITCHES WITH DRIVERS, MONOLITHIC SILICON						H				
T	AND AGENCIES OF THE DRAWING APPROVAL DATE DEPARTMENT OF 81-10-01																		
DEF	ENS	E		REV	REVISION LEVEL				SIZ		CAGE CODE 14933			81006					
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1. SCOPE

- 1.1 <u>Scope</u>. This drawing describes device requirements for class B microcircuits in accordance with 1.2.1 of MIL-STD-883, "Provisions for the use of MIL-STD-883 in conjunction with compliant non-JAN devices".
 - 1.2 Part or Identifying Number (PIN). The complete PIN shall be as shown in the following example:



1.2.1 <u>Device type(s)</u>. The device type(s) shall identify the circuit function as follows:

Device type	Generic number	Circuit function
Device type 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18	Generic number IH5040, DG5140 IH5041, DG5141 IH5042, DG5142 IH5043, DG5143 IH5044, DG5144 IH5045, DG5145 IH5046 IH5047 IH5140, HI5040 IH5141, HI5041 IH5142, HI5042 IH5143, HI5043 IH5144, HI5044 IH5145, HI5045 HI5046 IH5047, HI5046	Circuit function One-channel, 75 ohms, SPST switch Two-channel, 75 ohms, SPST switch One-channel, 75 ohms, SPDT switch Two-channel, 75 ohms, SPDT switch One-channel, 75 ohms, DPST switch One-channel, 75 ohms, DPST switch One-channel, 75 ohms, DPDT switch One-channel, 75 ohms, SPST switch One-channel, 75 ohms, SPST switch Two-channel, 75 ohms, SPDT switch One-channel, 75 ohms, SPDT switch One-channel, 30 ohms, SPDT switch Two-channel, 30 ohms, DPST switch One-channel, 75 ohms, DPST switch One-channel, 75 ohms, DPDT switch One-channel, 30 ohms, DPDT switch
19 20 21 22	IH5148, HI5048 IH5149, HI5049 IH5150, HI5050 IH5151, HI5051	Two-channel, 30 ohms, SPST switch Two-channel, 30 ohms, DPST switch One-channel, 30 ohms, SPDT switch Two-channel, 30 ohms, SPDT switch

1.2.2 <u>Case outline(s)</u>. The case outline(s) shall be as designated in MIL-STD-1835 and as follows:

Outline letter	Descriptive designator	<u>Terminals</u>	Package style
Α	GDFP5-F14 or CDFP6-F14	14	Flat pack
E	GDIP1-T16 or CDIP2-T16	16	Dual-in-line
I	MACY1-X10	10	Can
2	CQCC1-N20	20	Square leadless chip carrier

1.2.3 <u>Lead finish</u>. The lead finish shall be as specified in MIL-M-38510. Finish letter "X" shall not be marked on the microcircuit or its packaging. The "X" designation is for use in specifications when lead finishes A, B, and C are considered acceptable and interchangeable without preference.

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1.3 <u>Absolute maximum ratings</u> . V+ - V
V+ - V _D
V _D - √
V ₁ - V- ⁻ 33 V dc
V _L - V _{IN}
V _{IN} - V _R
VR - V-``
Current (any terminal except S or D)30 mA
Peak current (source to drain) 1/80 mA Storage temperature range65° C to +150° C
Lead temperature (soldering, 10 seconds)
Power dissipation, (P _D) 2/:
Case A at $T_A = +125^{\circ}$ C
Case I at $T_A = +125^{\circ}$ C
Case 2 at 1 _A = +125°C350 mW
1.4 Recommended operating conditions.
+Vcc+15 V dc
-V _{CC}
V1 5 V dC
Ambient operating temperature range (T_A)
2. APPLICABLE DOCUMENTS
2.1 Government specification, standards, and bulletin. Unless otherwise specified, the following specification, standards, and bulletin of the issue listed in that issue of the Department of Defense Index of Specifications and Standards specified in the solicitation, form a part of this drawing to the extent specified herein.
SPECIFICATION
MILITARY
MIL-M-38510 - Microcircuits, General Specification for.
STANDARDS
MILITARY
MIL-STD-883 - Test Methods and Procedures for Microelectronics. MIL-STD-1835 - Microcircuit Case Outlines.
BULLETIN
MILITARY
MIL-BUL-103 - List of Standardized Military Drawings (SMD's).
(Copies of the specification, standards, and bulletin required by manufacturers in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)
1/Pulse at 1 ms, 10 percent duty cycle maximum. 2/P For T _C = +100° C to +125° C, derate linearly at 12 mW/° C.

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2.2 <u>Order of precedence</u>. In the event of a conflict between the text of this drawing and the references cited herein, the text of this drawing shall take precedence.

3. REQUIREMENTS

- 3.1 <u>Item requirements</u>. The individual item requirements shall be in accordance with 1.2.1 of MIL-STD-883, "Provisions for the use of MIL-STD-883 in conjunction with compliant non-JAN devices" and as specified herein.
- 3.2 <u>Design, construction, and physical dimensions</u>. The design, construction, and physical dimensions shall be as specified in MIL-M-38510 and herein.
 - 3.2.1 <u>Case outline(s)</u>. The case outline(s) shall be in accordance with 1.2.2 herein.
 - 3.2.2 <u>Terminal connections</u>. The terminal connections shall be as specified on figure 1.
- 3.3 <u>Electrical performance characteristics</u>. Unless otherwise specified herein, the electrical performance characteristics are as specified in table I and shall apply over the full ambient operating temperature range.
- 3.3.1 <u>Switch operation</u>. The analog switches listed below are guaranteed to turn "on" with either a "low" input $(V_R \le V_{IL} \le 0.8 V)$ or "high" input $(2.4 V \le V_{IH} \le V_{IL})$ as specified below (see figure 1).

Device types	V _{IN}	Channels ON	Channels OFF
01, 09	2.4 V dc 0.8 V dc	1	1
02,10,	2.4 V dc 0.8 V dc	1, 2	1, 2
03, 05, 11, 13, 17, 18	2.4 V dc 0.8 V dc	1 2	2 1
04, 12, 19	2.4 V dc 0.8 V dc	1, 2 3, 4	3, 4 1, 2
07, 15, 21	2.4 V dc 0.8 V dc	2, 3 1, 4	1, 4 2, 3
06, 08, 14, 16, 20, 22	2.4 V dc 0.8 V dc	1, 2, 3, 4	1, 2, 3, 4

- 3.4 <u>Electrical test requirements</u>. The electrical test requirements shall be the subgroups specified in table II. The electrical tests for each subgroup are described in table I.
- 3.5 <u>Marking</u>. Marking shall be in accordance with MIL-STD-883 (see 3.1 herein). The part shall be marked with the PIN listed in 1.2 herein. In addition, the manufacturer's PIN may also be marked as listed in MIL-BUL-103 (see 6.6 herein).
- 3.6 <u>Certificate of compliance</u>. A certificate of compliance shall be required from a manufacturer in order to be listed as an approved source of supply in MIL-BUL-103 (see 6.6 herein). The certificate of compliance submitted to DESC-EC prior to listing as an approved source of supply shall affirm that the manufacturer's product meets the requirements of MIL-STD-883 (see 3.1 herein) and the requirements herein.
- 3.7 <u>Certificate of conformance</u>. A certificate of conformance as required in MIL-STD-883 (see 3.1 herein) shall be provided with each lot of microcircuits delivered to this drawing.

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		TABLE	I. Electrical performan	<u>ce characteristics</u>				
Test	Symbol	Condition -55° C ≤ T _A	≤ +125°C,	Group A subgroups	Device type	Limits	Unit	
		V _{CC} = ±	se specified			Min	Max	
Drain source	R _{DS}		V _D = -10 V I _S = 10 mA	1, 3	1 .		75	Ω <u>1</u> /
"ON" resistance			I _S = 10 mA	_2	through 16		150	_
				1, 3	17 through		45	-
				2	22		50	_
			$V_D = 10 \text{ V}$ $I_S = -10 \text{ mA}$	1, 3	1 through	-	75	-
				2	16		150	
				1, 3	17 through		45	-
				2	22		50	-
		$V_{CC} = \pm 10 \text{ V}$	$V_D = -7.5 \text{ V}$ I _S = 10 mA	1, 3	All		75	-
				2			150	
			$V_D = 7.5 \text{ V}$ $I_S = -10 \text{ mA}$	<u>1, 3</u>	All		75	_
Channel "ON"	I _{D(ON)}	(See 3.3.1	$V_{S} = V_{D} = 10 \text{ V}$	2, 3	All	-200	150 200	nA
leakage current	·D(ON)	for V _{IN})	13 - 10 - 10 T	1	7	-2	2	- 177
			$V_S = V_D = -10 \text{ V}$	2, 3	All	-200	200	_
			-	1		-2	2	_
Drain "OFF"	I _{D(OFF)}	(See 3.3.1	V _S = -10 V V _D = 10 V	2, 3	All	-100	100	_
leakage current		for V _{IN})	V _D = 10 V	1		-1	1	-
			V _S = 10 V V _D = -10 V	2, 3	All	-100	100	-
			ν _D = -10 γ	1		-1	1	-
Source "OFF" leakage	IS(OFF)	(See 3.3.1 for V _{IN})	V _S = 10 V V _D = -10 V	2, 3	All	-100	100	-
current		.5. (114)	-U = 10 v	1		-1	1	_

See footnotes at end of table.

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2, 3

ΑII

-100

100

V_S = -10 V V_D = 10 V

TABLE I. <u>Electrical performance characteristics</u> - Continued.

Test	Symbol	-55° C \leq T _{Δ} \leq +125 $^{\circ}$ C,	Group A subgroups	Device type	Limit	s	Unit
		V _{CC} = ±15 V unless otherwise specified			Min	Max	
Input current,	I _{IL}	V _{IN} = 0 V	1, 3	All	1	1	μΑ
input voltage low			2		-10	1	
Input current, input voltage	ΙΗ	V _{IN} = 2.4 V, 5 V	1, 3	All	1	1	μΑ
high			2		-1	10	
Positive supply current	+lCC	$V_{IN} = 0 V, 5 V$	1, 3	1 through		10	μΑ
			2	8		100	-
			1	9		200	=
			2, 3	through 22		300	
Negative supply	-lcc	V _{IN} = 0 V, 5 V	1, 3	1	-10		μA
current		iiv - 7-	2	through 8	-100		
			1	9	-200		
			2, 3	through			-
				22	-300	1.0	
Logic supply current	+1_	V _{IN} = 0 V, 5 V	1, 3	1 through		10	μA
			_2	8		100	-
			1	9 through		-200	-
			2, 3	22		-300	
Reference supply	+I _R	V _{IN} = 0 V, 5 V	1, 3	1	-10		μA
current			2	through 8	-100		
			1	9	-200		
			2, 3	through 22	-300		
Turn on time	4				-500	275	n-
Turn-on time	ton			1 through		375	ns
			9	8		450	-
			_10			550	-
			_11	9 through		450	
			9	through 22		500	-
			10			800	

See footnotes at end of table.

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TABLE I. <u>Electrical performance characteristics</u> - Continued.

-		T.					
Test	Symbol	Conditions -55°C ≤ TA ≤ +125°C,	Group A subgroups	Device type	Limits	3	Unit
		V _{CC} = ±15 V unless otherwise specified			Min	Max	
Turn-off time	toff		_11	1 through		250	ns
			9	8		250	
			_10			400	
			_11	9 through		350	
			9	through 22		450	
			10			600	
Single channel isolation <u>2</u> /	V _{ISO}	$R_L = 100\Omega$, $f = 100 \text{ kHz}$, $V_{IN} = 2 V_{p-p}$, $C_L = 5 \text{ pF}$, $T_A = +25^{\circ}C$,	9	All	60		dB
Crosstalk between channels <u>2</u> /	Vст	R _L = 100Ω, C _L = 5 pF, f = 100 kHz, V _{IN} = 2 V _{p-p} , T _A = +25°C	9	All	60		dB
Charge transfer 2/ error	VCTE	V _{IN} = 0 V, C _L = 10 nF, T _A = +25° C	9	All		30	mV
Break before make <u>2</u> / time delay	t _D	T _A = +25° C	9	03,04, 07	5		ns
Driver input 2/ capacitance	C _A	V _{IN} = 0 V, T _A = +25° C	9	All		45	pF
Switch input 2/ capacitance	C _{IS}	Switch off, T _A = +25° C	9	All		60	pF
Switch output 2/ capacitance	c _{OS}	Switch off, T _A = +25°C	9	All		60	pF

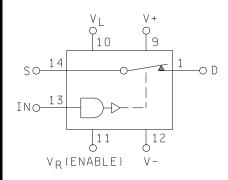
 $^{1\!\!/}$ The listed resistance limits correspond to the following voltage values: 45Ω and 75Ω - ± 9.25 V, ± 6.75 V 50Ω and 150Ω - ± 8.50 V, ± 6.0 V $2\!\!/$ If not tested shall be guaranteed at the specified limits.

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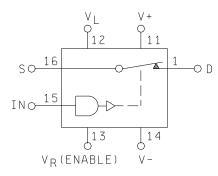
Device type 01 only

Case A



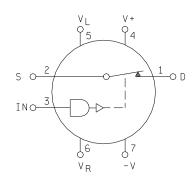
Device types 01 and 09

Case E



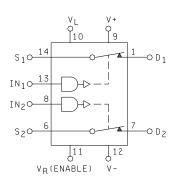
Device types 09 only

Case I



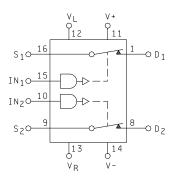
Device type 02 only

Case A



Device types 02, 10, and 19

Case E



Device types 02 and 10

Case I

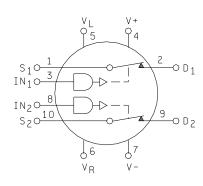
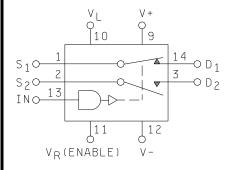


FIGURE 1. Terminal connections.

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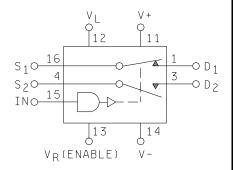
Device type 03 only

Case A



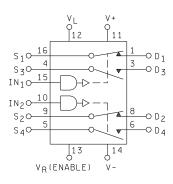
Device types 03, 11, and 21

Case E



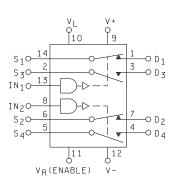
Device type 04 only

Case A



Device types 12 and 22

Case E



Case 2

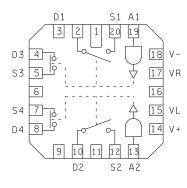


FIGURE 1. Terminal connections - Continued.

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SIZE
A

REVISION LEVEL
F
9

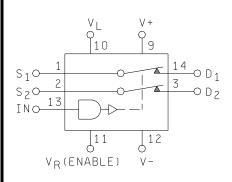
Device type 05 only

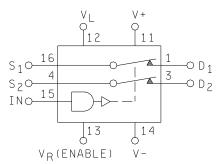
Device types 05 and 13

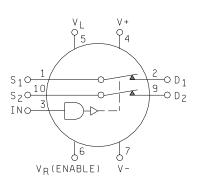
Case A



Case I







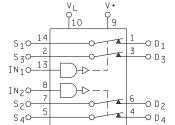
Device type 06 only

Device types 06, 14, and 20

Case E

Device types 14 and 20

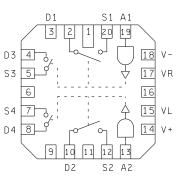




11

V_R(ENABLE)





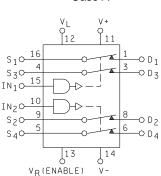
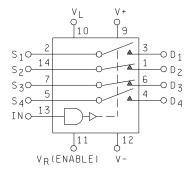


FIGURE 1. Terminal connections - Continued.

STANDARDIZED MICROCIRCUIT DRAWING	SIZE A		81006
DEFENSE ELECTRONICS SUPPLY CENTER		REVISION LEVEL	SHEET
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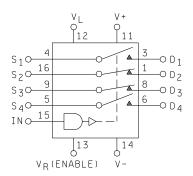
Device type 07 only

Case A



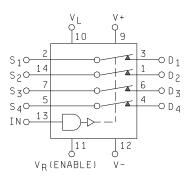
Device types 07, 15, and 17

Case E



Device type 08 only

Case A



Device types 08, 16, and 18

Case E

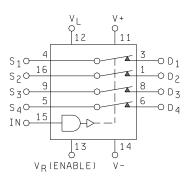


FIGURE 1. <u>Terminal connections</u> - Continued.

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TABLE II. Electrical test requirements.

MIL-STD-883 test requirements	Subgroups (in accordance with method 5005, table I)
Interim electrical parameters (method 5004)	
Final electrical test parameters (method 5004)	1*, 2, 3
Group A test requirements (method 5005)	1, 2, 3, 9, 10, 11
Groups C and D end-point electrical parameters (method 5005)	1

^{*} PDA applies to subgroup 1.

- 3.8 <u>Notification of change</u>. Notification of change to DESC-EC shall be required in accordance with MIL-STD-883 (see 3.1 herein).
- 3.9 <u>Verification and review</u>. DESC, DESC's agent, and the acquiring activity retain the option to review the manufacturer's facility and applicable required documentation. Offshore documentation shall be made available onshore at the option of the reviewer.
 - 4. QUALITY ASSURANCE PROVISIONS
- 4.1 <u>Sampling and inspection</u>. Sampling and inspection procedures shall be in accordance with section 4 of MIL-M-38510 to the extent specified in MIL-STD-883 (see 3.1 herein).
- 4.2 <u>Screening</u>. Screening shall be in accordance with method 5004 of MIL-STD-883, and shall be conducted on all devices prior to quality conformance inspection. The following additional criteria shall apply:
 - a. Burn-in test, method 1015 of MIL-STD-883.
 - (1) Test condition A, B, C, or D. The test circuit shall be maintained by the manufacturer under document revision level control and shall be made available to the preparing or acquiring activity upon request. The test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in test method 1015 of MIL-STD-883.
 - (2) $T_A = +125^{\circ} C$, minimum.
 - b. Interim and final electrical test parameters shall be as specified in table II herein, except interim electrical parameter tests prior to burn-in are optional at the discretion of the manufacturer.
- 4.3 Quality conformance inspection. Quality conformance inspection shall be in accordance with method 5005 of MIL-STD-883 including groups A, B, C, and D inspections. The following additional criteria shall apply.
 - 4.3.1 Group A inspection.
 - a. Tests shall be as specified in table II herein.
 - b. Subgroups 4, 5, 6, 7, and 8 in table I, method 5005 of MIL-STD-883 shall be omitted.

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- 4.3.2 Groups C and D inspections
 - a. End-point electrical parameters shall be as specified in table II herein.
 - b. Steady-state life test conditions, method 1005 of MIL-STD-883.
 - (1) Test condition A, B, C, or D. The test circuit shall be maintained by the manufacturer underdocumentrevision level control and shall be made available to the preparing or acquiring activity upon request. The test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in test method 1005 of MIL-STD-883.
 - (2) $T_A = +125^{\circ} C$, minimum.
 - (3) Test duration: 1,000 hours, except as permitted by method 1005 of MIL-STD-883.
- 5. PACKAGING
- 5.1 Packaging requirements. The requirements for packaging shall be in accordance with MIL-M-38510.
- 6. NOTES
- 6.1 <u>Intended use</u>. Microcircuits conforming to this drawing are intended for use when military specifications do not exist and qualified military devices that will perform the required function are not available for original equipment manufacturer application. When a military specification exists and the product covered by this drawing has been qualified for listing on QPL-38510, the device specified herein will be inactivated and will not be used for new design. The QPL-38510 product shall be the preferred item for all applications.
 - 6.2 Replaceability. Replaceability is determined as follows:
 - Microcircuits covered by this drawing will replace the same generic device covered by a contractor-prepared specification or drawing.
 - When a QPL source is established, the device specified in this drawing will be replaced by the microcircuit identified as PIN M38510/10501BXX-----/10508BXX.
- 6.3 <u>Configuration control of SMD's</u>. All proposed changes to existing SMD's will be coordinated with the users of record for the individual documents. This coordination will be accomplished in accordance with MIL-STD-481 using DD Form 1693, Engineering Change Proposal (Short Form).
- 6.4 <u>Record of users</u>. Military and industrial users shall inform Defense Electronics Supply Center when a system application requires configuration control and the applicable SMD. DESC will maintain a record of users and this list will be used for coordination and distribution of changes to the drawings. Users of drawings covering microelectronics devices (FSC 5962) should contact DESC-EC, telephone (513) 296-6047.
- 6.5 <u>Comments</u>. Comments on this drawing should be directed to DESC-EC, Dayton, Ohio 45444, or telephone (513) 296-5377.
- 6.6 <u>Approved sources of supply</u>. Approved sources of supply are listed in MIL-BUL-103. The vendors listed in MIL-BUL-103 have agreed to this drawing and a certificate of compliance (see 3.6 herein) has been submitted to and accepted by DESC-EC.

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MICROCIRCUIT DRAWING
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STANDARDIZED MILITARY DRAWING SOURCE APPROVAL BULLETIN

DATE: 92-11-24

Approved sources of supply for SMD 81006 are listed below for immediate acquisition only and shall be added to MIL-BUL-103 during the next revision. MIL-BUL-103 will be revised to include the addition or deletion of sources. The vendors listed below have agreed to this drawing and a certificate of compliance has been submitted to and accepted by DESC-EC. This bulletin is superseded by the next dated revision of MIL-BUL-103.

Military drawing PIN	Vendor CAGE number	Vendor similar PIN <u>1</u> /	Replacement military specification PIN	
8100601AX <u>2</u> /			M38510/10501BAX	
8100601EX <u>3</u> /	1ES66	IH5040MJE/883B	M38510/10501BEX	
	17856	DG5140AK		
8100602AX <u>2</u> /			M38510/10502BAX	
8100602EX <u>3</u> /	1ES66	IH5041MJE/883B	M38510/10502BEX	
	17856	DG5141AK		
8100602IX	17856	DG5141AA	M38510/10502BIX	
8100603AX <u>2</u> /			M38510/10503BAX	
8100603EX <u>3</u> /	1ES66	IH5042MJE/883B	M38510/10503BEX	
	17856	DG5142AK		
8100604AX <u>2</u> /			M38510/10504BAX	
8100604EX <u>3</u> /	34371	IH5043MJE	M38510/10504BEX	
	1ES66	IH5043MJE/883B		
	17856	DG5143AK		
8100605AX <u>2</u> /			M38510/10505BAX	
8100605EX <u>3</u> /	1ES66	IH5044MJE/883B	M38510/10505BEX	
	17856	DG5144AK		
8100605IX	17856	DG5144AA	M38510/10505BIX	
8100606AX	1ES66	IH5045MFD/883B	M38510/10506BAX	
8100606EX <u>3</u> /	1ES66	IH5045MJE/883B	M38510/10506BEX	
	17856	DG5145AK		
8100607AX <u>2</u> /			M38510/10507BAX	
8100607EX <u>2</u> /			M38510/10507BEX	
8100608AX <u>2</u> /			M38510/10508BAX	
8100608EX	1ES66	IH5047MJE/883B	M38510/10508BEX	
8100609EX <u>3</u> /	1ES66	IH5140MJE/883B	M38510/10501BEX	
	34371	HI1-5040/883		
8100609IX <u>2</u> /			M38510/10501BIX	
8100610EX <u>3</u> /	1ES66	IH5141MJE/883B	M38510/10502BEX	
	34371	IH5141MJE		
	34371	HI1-5041/883		
8100610IX <u>2</u> /			M38510/10502BIX	
8100611EX <u>3</u> /	1ES66	IH5142MJE/883B	M38510/10503BEX	
	34371	IH5142MJE		
	34371	HI1-5042/883		
8100612EX <u>3</u> /	1ES66	IH5143MJE/883B	M38510/10504BEX	
	32293	IH5143MJE		
	34371	HI1-5043/883		
81006122X	34371	HI4-5043/883		

STANDARDIZED MILITARY DRAWING SOURCE APPROVAL BULLETIN - Continued.

Military drawing PIN	Vendor CAGE number	Vendor similar PIN <u>1</u> /	Replacement military specification PIN
8100613EX <u>3</u> /	1ES66	IH5144MJE/883B	M38510/10505BEX
	34371	IH5144MJE	
	34371	HI1-5044/883	
8100613IX <u>2</u> /			M38510/10505BIX
8100614EX <u>3</u> /	1ES66	IH5145MJE/883B	M38510/10506BEX
	34371	IH5145MJE	
	34371	HI1-5045/883	
81006142X	34371	HI4-5045/883	
8100615EX	34371	HI1-5046/883	M38510/10507BEX
8100616EX	1ES66	IH5047MJE/883B	M38510/10508BEX
	34371	HI1-5047/883	
8100617EX	34371	HI1-5046A/883	
8100618EX	34371	HI1-5047A/883	
8100619EX	1ES66	IH5148MJE/883B	
	34371	HI1-5048/883	
8100620EX	1ES66	IH5149MJE/883B	
	34371	HI1-5049/883	
81006202X	34371	HI4-5049/883	
8100621EX	1ES66	IH5150MJE/883B	
	34371	HI1-5050/883	
8100622EX	34371	IH5151MJE	
	34371	HI1-5051/883	
	1ES66	IH5151MJE/883B	
81006222X	34371	HI4-5051/883	

Caution. Do not use this number for item acquisition. Items acquired to this number may not satisfy the performance requirements of this drawing.
 No longer available from an approved source.
 Inactive for new design. Use QPL-38510 device.

Vendor CAGE <u>number</u>	Vendor name and address
17856	Siliconix, Incorporated 2201 Lauralwood Road Santa Clara, CA 95054
1ES66	Maxim Integrated Products 120 San Gabriel Drive Sunnyvale, CA 94086
34371	Harris Semiconductor 200 Palm Bay Boulevard P.O. Box 883 Melbourne, FL 32901

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